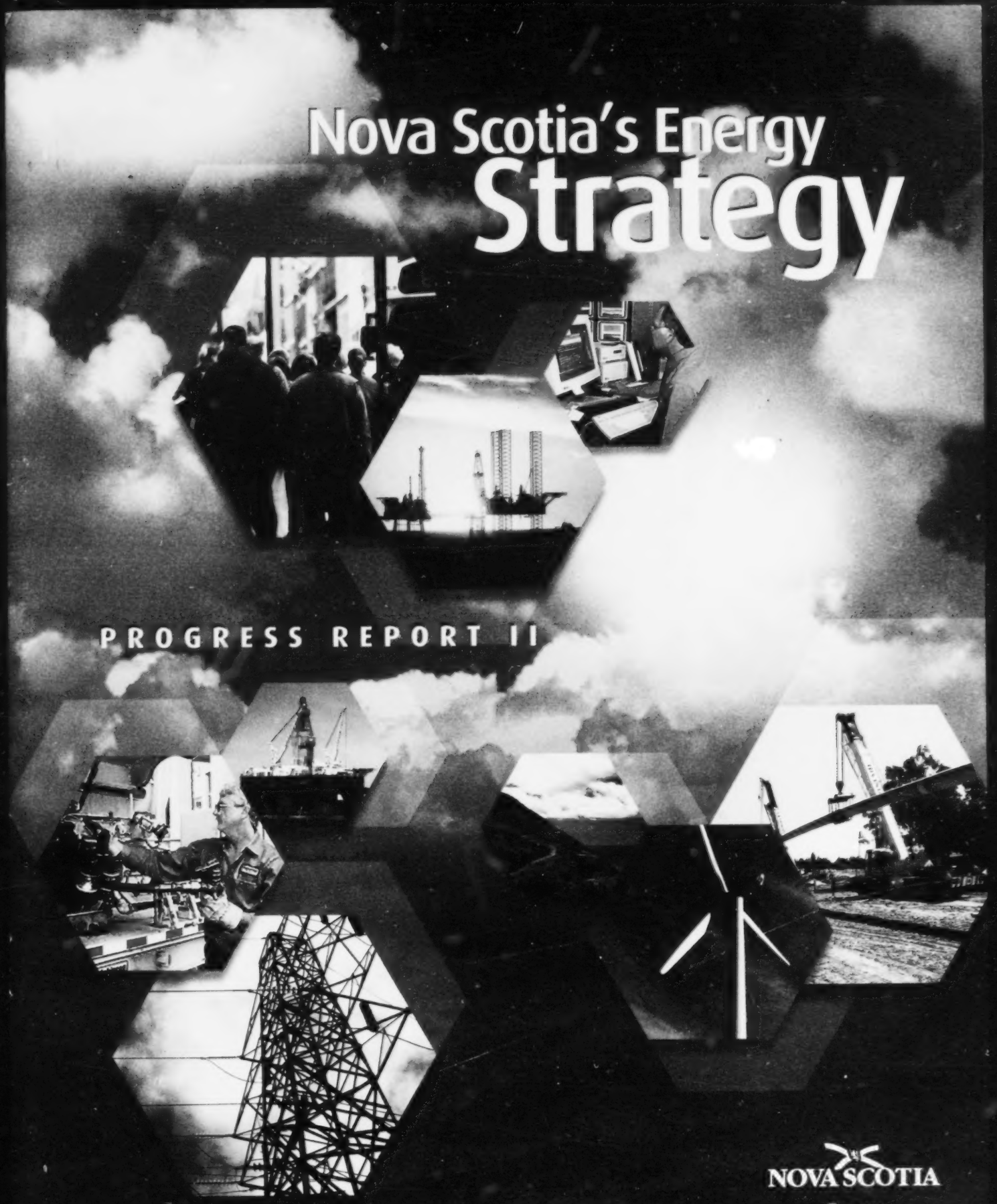
Nova Scotia's Energy Strategy



PROGRESS REPORT II

NOVA SCOTIA
Energy

Energy continues to be a driving force in our everyday lives. Offshore exploration and development, natural gas distribution, electricity generation, climate change and energy efficiency — all issues affecting Nova Scotians.

In December 2001, the Province of Nova Scotia released *Seizing the Opportunity—Nova Scotia's Energy Strategy*, a comprehensive guide that would help Nova Scotians build a world-class energy industry that provides economic growth, protects our environment, and secures a strong future for our children.

I am pleased to release this report, which demonstrates just how far we have come in such a short period of time. We have made significant progress in improving regulatory efficiency, establishing policies for competition in our electricity market, and working to promote Nova Scotia's resource potential around the world.

Energy in Nova Scotia continues to be about partnerships. Our partnerships with other governments, industry, local businesses, and communities are crucial to our success, whether we are searching for oil and natural gas offshore, addressing climate change, or providing Nova Scotians with the information they need to make good energy choices.

As we move forward, we are meeting the challenges of this fast-paced, high risk industry with clear priorities and a solid foundation that will continue to guide our efforts for years to come. I look forward to meeting those challenges in partnership and with a common goal—a world-class energy industry and a better place in which to live, work, do business, and raise families.

Cecil P. Clarke
Minister of Energy

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Introduction

In the year since the last progress report on Nova Scotia's Energy Strategy, there has been a great deal of activity in our province's energy sector.

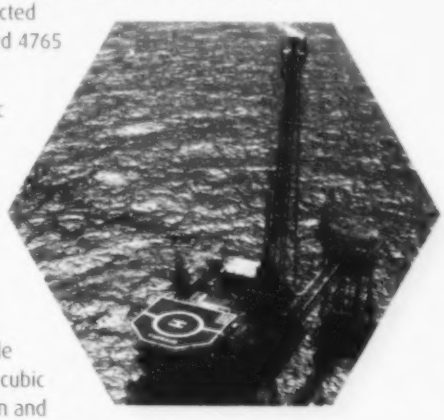
With EnCana's deepwater well at Torbrook in late 2002, and Imperial's deepwater well at Balvenie, we have had another busy season in our offshore. While these wells did not result in commercial quantities of hydrocarbons, other wells produced much better results. EnCana drilled two successful shallow water wells this summer at Margaree and MarCoh as part of their review of the Deep Panuke Project.

And drilling activity is continuing into 2004 with Canadian Superior's shallow water well with partner El Paso in the Mariner Block and EnCana and Shell drilling a deepwater well on the Weymouth block.

Last year, the Department of Energy forecasted 8–10 wells for offshore Nova Scotia over an 18-month period. With six wells in the past 12 months and 2–4 wells forecast for 2004, we are meeting that target, but there is more to be done to encourage further exploration.

A significant number of exploration licenses are nearing expiration, and we must work to encourage more exploration. With the continued promotion of our resources to exploration companies around the world and our work on regulatory efficiency, we are doing our part to improve the investment climate and introduce potential new investors to the opportunities in our offshore.

In addition to exploration drilling, there has been significant seismic activity conducted both onshore and offshore Nova Scotia in 2003. In fact, there were four onshore seismic programs conducted collecting more than 84 kilometres of seismic data. Offshore, four 2-D programs collected more than 15 000 kilometres of data and three 3-D programs collected 4765 square kilometres of data.



After extensive public consultation and a scientific review, one seismic program has been completed offshore Cape Breton by Corridor Resources. In an effort to better understand its effects on local snow crab stocks, the Department of Energy participated in a scientific study to examine the impacts of seismic testing. The initial results of the study are now being evaluated, and the Department of Fisheries and Oceans has confirmed that preliminary results indicate no harmful effects.

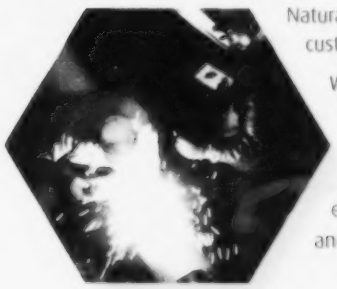
With the Alma production platform now online, production at the Sable Offshore Energy Project was brought up to approximately 500 million cubic feet each day. South Venture development continues, while the design and construction of the compression deck will also assist in improving the production levels of the project.

There's no doubt that the Sable Project faces challenges with complex geology and difficult reservoirs—challenges that were brought to light earlier this year with Shell Canada's announcement of a reduction in the estimated reserves, reducing the production forecasts and the royalties Nova Scotians can expect to receive from the fields currently associated with the project.

While this was disappointing news, it is also a reality check. This is a high risk industry, and Nova Scotia is a relatively new area with very real potential for continued commercial success. We must continue to explore for new resources if we are to increase production and development activity. We must work together—industry, government and local businesses—to do what we can to encourage exploration and new investment, something we are accomplishing with our partners in the Atlantic Energy Roundtable.

Nova Scotia's offshore now has a $3-billion investment in infrastructure, a direct pipeline to a demanding natural gas market, and companies that are committed to finding new petroleum supplies. We must build on that foundation to develop and grow the industry and our economy.

Activity in the energy sector has not been limited to the oil and gas industry. The Electricity Marketplace Governance Committee completed a comprehensive report and recommendations on beginning the restructuring of our electricity industry including introducing competition into the electricity marketplace and establishing a renewable energy portfolio standard.



Natural gas distribution became a reality with the first commercial and residential customers receiving service from Heritage Gas in December 2003.

Work continues on a national approach to climate change, while our efforts in energy efficiency and public education are helping Nova Scotians make informed choices about the energy they use each day.

Together, we are working to build a strong, diverse energy sector that enables us to find new energy resources, manage the energy we use wisely, and build a healthier, more prosperous, self-reliant province.

Priorities and Progress

The Energy Strategy has always been viewed as a dynamic document, one that was designed to lay a foundation and set strategic directions while remaining flexible as we meet the changing challenges and opportunities in our energy sector.

With the creation of the Department of Energy in June 2002, the strategy has evolved from a stand-alone initiative to a guiding force in establishing short- and long-term priorities that will help us reach our goal of building a world-class energy industry in Nova Scotia.

The success of the Energy Strategy is demonstrated, in part, by its integration into the day-to-day operations and business planning of the Department of Energy. Our policies, programs, and initiatives are designed to *power the economy, improve the environment, and secure our future* by focusing on specific priorities that turn these over arching themes into real results for Nova Scotians.

As the energy sector continues to grow and change, our success will depend upon our ability to respond to those changes effectively. Each year, our business plan will outline how our priorities for the coming year link to the themes of the Energy Strategy in a way that responds to the challenges and opportunities that we will face. In addition, our progress in implementing the Energy Strategy through these priorities will be reported on each year in the full Government Accountability Report, making the integration of strategy and action complete and allowing us to become more efficient in our performance measurement and reporting procedures.

Specifically, the current priorities are

- improving regulatory efficiency
- building a more competitive oil and gas industry
- managing our energy resources
- addressing Climate Change
- improving energy efficiency
- ensuring secure, reliable energy
- informing Nova Scotians

This *Energy Strategy Progress Report* is a snapshot, highlighting the progress made in implementing the Energy Strategy. In keeping with our commitment to Nova Scotia's Auditor General to provide full accountability to Nova Scotians, a full detailed reporting of each action item identified in the Energy Strategy is available on the Department of Energy website at www.gov.ns.ca/energy.

IMPROVING REGULATORY EFFICIENCY

With an estimated 40 trillion cubic feet of natural gas, existing production infrastructure, and proximity to a major North American market, Nova Scotia's potential is attractive. But that potential alone is not enough to build a successful oil and natural gas industry. The federal and provincial regulations governing Nova Scotia's offshore are complex, requiring a tremendous investment of time and resources by oil and gas companies. As part of our commitment in the Energy Strategy to make our regulatory process more efficient and effective, the Department of Energy continues to provide leadership in an Atlantic-wide effort to address these issues.

As part of the Atlantic Energy Roundtable process, the Department of Energy participated in an international benchmarking study designed to assess the time frames and regulatory climate for competing jurisdictions. The study showed that Nova Scotia's processes are approximately one and a half to two times as long as competing jurisdictions in the Gulf of Mexico, Norway, and the United Kingdom. Steps to bring our regulatory approvals in line with these benchmarks are now underway.

A lessons-learned workshop was held to generate practical solutions to challenges within the industry's procurement process and to support regulatory efficiency. In addition, best practices from suppliers were examined to assist industry associations in educating their members.

In October 2003, the Atlantic Energy Roundtable reconvened in Newfoundland and Labrador. This second meeting of the Government of Canada, three Atlantic provinces, and key industry representatives reviewed the extensive work completed by two task force groups examining regulatory efficiency and industrial opportunities. The Roundtable was unanimous in their commitment to reducing regulatory approval times, considering ways of improving benefits monitoring and reporting, establishing a supplier development initiative with a process for supply-chain development, and stimulating exploration by being competitive on a cost basis.

A working group of industry and government is now implementing improvements to our regulatory process and examining ways to reduce drilling costs.

Nova Scotia continues to play a lead role in the work on regulatory efficiency and is working with the entire Roundtable to provide a status report in April 2004.

While we continue to work with our partners within industry and the federal government, we are also doing our part to ensure that our own regulatory processes are in order as well.

In October 2003, legislation was introduced to provide offshore workers with the same kind of occupational health and safety legislation as those working on land. We are now reviewing the legislation while we consult broadly with Nova Scotians.

Work continues on Nova Scotia's Energy Act, which will contain a number of improvements, bringing together many different pieces of legislation relating to energy issues under one Act.

The Department of Energy continues to support the Canada-Nova Scotia Offshore Petroleum Board with access to information and funding necessary to effectively and efficiently carry out its responsibilities in Nova Scotia's offshore.

BUILDING A MORE COMPETITIVE OIL AND GAS INDUSTRY

The key to our success in the industry is in our ability to compete; and we are working with partners in the industry and the federal government to level the playing field and become more competitive. Nova Scotians must use innovation, research and development, and a commitment to excellence to win contracts in markets here at home and all over the globe.

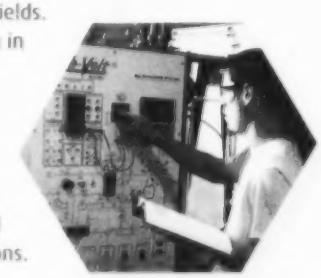
We are working with the federal government to ensure that the regulatory process is clear and that Nova Scotians are given a full and fair opportunity to compete. This is not about favouritism—it's about having the opportunity to compete. As we work to provide clear direction on local benefits and opportunities, we continue to help companies promote their expertise and find opportunities to build strategic alliances and partnerships that will help them to improve their ability to compete both at home and around the world.

We are doing that by learning from our experiences and the experiences of other jurisdictions, by understanding our opportunities in the global perspective, and by offering the world a truly competitive place in which to do business.

The Department of Energy works closely with industry and post-secondary institutions to ensure that we continue to provide a skilled workforce that is competitive internationally. We are supporting training programs at the Nova Scotia Community College (NSCC) and the University College of Cape Breton (UCCB)—programs that are improving our skills and helping us export our training expertise around the world.

The Department of Energy provided the Nova Scotia Community College Nautical Institute with $500,000 for the purchase of a dynamic positioning simulator. This technology allows drilling rigs and ships to remain positioned over drilling targets without anchors through global satellite positioning. The simulator will allow the NSCC to offer training in realistic settings and to provide graduates with internationally recognized certification.

Our Energy Training Program for students continues to bring together post-secondary students with local employers to provide on-the-job energy related experience in their chosen fields. In 2003, 54 students found work at 17 companies, bringing the total participation in the program to 103 students and 30 companies over two years.



In November, the department hosted the Nova Scotia Petroleum Skills Forum. Industry, education, and government leaders from across Atlantic Canada came together to collaborate and determine next steps in building a world-class energy workforce in Nova Scotia, enhancing our ability to compete in the global marketplace. The Skills Forum will help us address the challenges in creating and maintaining a skills base that will meet local labour market needs and expectations.

Another important forum, addressing research and development in the energy sector, will be held in May 2004, bringing experts in energy research and development together to identify ways to improve our R&D capacity and develop world-class research projects that have both scientific and commercial value.

Building our capacity in research and development begins with understanding where we stand in terms of energy research being conducted in Atlantic Canada. The Department of Energy, the Atlantic Canada Opportunities Agency, and Petroleum Research Atlantic Canada (PRAC) have worked together to develop Atlantic Canada's online R&D Database with more than 100 registered researchers, including academic and public research institutions as well as private research companies. The Energy Research and Development website and database, located at www.energyresearch.ca, provides information about potential sources of research funding; descriptions and links to other relevant energy organizations and databases; and notices of open calls for research proposals, upcoming workshops and conferences.

The Department of Energy continues to promote Nova Scotia's resources, workforce, and competitive edge at trade shows and conferences, both here and around the world. Our participation in the Offshore Technology Conference in Houston, Texas; Offshore Europe 2003 in Aberdeen, Scotland; and the 2003 Canadian Offshore Resources Exhibition in Halifax is raising our profile and building new relationships.

Trade shows offer more than an opportunity to showcase Nova Scotia's resource potential. Many companies have benefitted from attending these shows through lucrative contracts, joint venture agreements and technology acquisitions.

The development of promotional materials, such as *Fueling the Future*, Nova Scotia's oil and natural gas CD-ROM, and the 2004 Offshore Prospect Profile, is helping us highlight Nova Scotia's resource potential and business capacity at trade shows, official visits, and technical conferences like the North American Prospect Exchange held in February 2004 in Houston, Texas.

MANAGING OUR ENERGY RESOURCES

Nova Scotia's resources have tremendous potential, and we must manage them responsibly to ensure that they bring real benefits to our economy and our quality of life. Through the management of our oil and natural gas resources, both onshore and offshore, as well as the administration of our royalty agreements, we are working to promote our resources, protect our environment, and provide clear information about the royalties we receive.

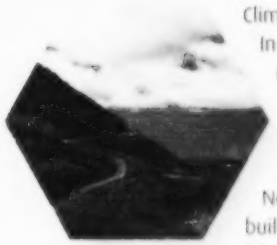
The Department of Energy continues to make regulatory efficiency a priority in the onshore as well. Our agreements with the Departments of Environment and Labour and Natural Resources help us provide potential onshore explorers with one-window access to the exploration approval process.

Our technical staff have made presentations on Nova Scotia's resource potential all over the world. Whether we are presenting in Houston as part of the Offshore Technology Conference or in Barcelona, Spain, as part of the American Association of Petroleum Geologists International Conference, our growing expertise in Nova Scotia's offshore and onshore geology is attracting world-wide interest.

As the owners of our natural resources, the people of Nova Scotia deserve to know how much royalties are paid and how the royalty agreements are administered. Our royalty estimates are officially released by the Department of Finance each quarter and updated on the Department of Energy website.

Our highly trained audit staff continue to work with the Sable Offshore Energy Partners to validate costs and revenues for royalty purposes. We have added resources to improve this process and are ensuring that Nova Scotians are well served through this extensive process—a process that ensures that our royalty regime remains both fair and competitive.

CLIMATE CHANGE



Climate change is a global problem with global impacts. It requires a global solution. In 2003, Canada became the 100th country to ratify the Kyoto Protocol, making a commitment to cut 240 megatonnes of greenhouse gas emissions between 2008 and 2012. Although there are questions as to whether or not Russia will ratify and what impact that will have on the protocol, it is clear that there is a national commitment to addressing climate change. It is a commitment we share.

Nova Scotia plays a lead role in the federal, provincial, and territorial discussions on building a national climate change approach, co-chairing several committees. The focus of these discussions is to develop an approach that reaches the emission reduction targets while not placing an unreasonable burden on any one region.

While climate change discussions continue at the national level, the Department works with Clean Nova Scotia and supports the Climate Change Centre in increasing awareness of greenhouse gas emissions and global warming throughout the province.

Air quality continues to be a focus for the Province of Nova Scotia and the Department of Energy and Labour, the Department of Environment and Labour, the Office of Economic Development, Nova Scotia Business Inc., Nova Scotia Power, and other industry representatives continue working together to reduce emissions of mercury, sulphur, nitrogen, and ozone.

IMPROVING ENERGY EFFICIENCY

Building a world-class energy sector means more than the development of our natural resources. It means that we must be responsible energy consumers, aware of the energy we use and the impact we have on our environment. The Department of Energy works with government, industry, and a number of organizations to improve our energy efficiency and encourage energy conservation all over the province.

Our work continues with Clean Nova Scotia, supporting home audit programs that help Nova Scotians find ways to improve the energy efficiency in their homes and save money at the same time. Working with the federal government, we participate in promoting Natural Resources Canada's EnerGuide for Houses program, which is expected to result in thousands of audits over the next three years.

Nova Scotians are national leaders in R-2000 housing and the Department of Energy continues to work with the Nova Scotia Home Builder's Association to promote the construction of these energy-efficient homes throughout the province. Our participation in the Showcase of Homes and other R-2000 initiatives help make Nova Scotia's R-2000 program the most successful in Canada.

The TRAX program, delivered by the Ecology Action Centre, continues to promote alternative modes of transportation to Nova Scotians. In 2003, the U-Pass project was launched at Saint Mary's University. Supported by the Department of Energy, the program provides bus passes to students at a nominal fee to encourage use of public transit.

In co-operation with the Department of Transportation and Public Works, the Department of Energy supports the Halifax Regional Municipality's Bus Rapid Transit Program, which will introduce 18 new buses and construct new infrastructure to provide public transport commuters with faster, more convenient trips to downtown Halifax from Cole Harbour and Sackville.

The Province of Nova Scotia is also improving energy efficiency with the installation of energy-efficient LED traffic lights throughout the Halifax Regional Municipality, the use of biofuels, and has received awards for energy efficiency measures in some government buildings.

ENSURING SECURE, RELIABLE ENERGY

In the fall of 2003, reliable energy became very personal for many Nova Scotians. Events like Hurricane Juan remind us just how dependent we are on electricity in today's world. The Department of Energy is working to ensure secure, reliable energy for Nova Scotians.

The Electricity Marketplace Governance Committee (EMGC), formed in May 2001 as follow-up to the energy strategy commitments, was chaired by Dr. Robert Fournier of Dalhousie University and consisted of representatives from a broad stakeholder group. The committee met over a period of 14 months and submitted its final report in October with 89 recommendations that included advice on how we open up our electricity market to competition, add new generation capacity, open our transmission system, encourage renewable energy, and encourage options for co-generation. After reviewing the recommendations, the government accepted all recommendations, recognizing that the EMGC provided a long-term framework for a cautious, collaborative approach to increasing competition in a way that protects the security and reliability of the electricity system in Nova Scotia.

Work has begun with Nova Scotia Power Inc. and the Nova Scotia Utility and Review Board on a process for authorizing open access transmission throughout Nova Scotia. This is an important first step in opening the market to competition in a manner that is fair to power producers and consumers.

The Department of Energy is also working actively on developing a competitive process for new electrical generation capacity requirements and encouraging renewable energy and co-generation.

Renewable energy was an important part of the EMGC recommendations, and the Department of Energy is working with Nova Scotia Power Inc. to reach the voluntary renewable energy target for new renewable generation totalling approximately 50 megawatts. This process will be monitored for three years and a renewable portfolio standard will be implemented in 2006.

Nova Scotia's green energy program is now underway with two wind turbine projects and a power purchase agreement with Atlantic Wind Power for 100 gigawatt hours of wind energy from the wind farm to be constructed in Pubnico in 2004.

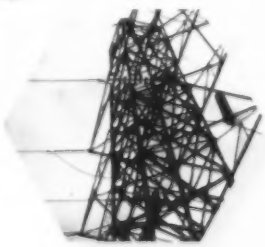
The Department of Energy has co-funded a study examining the potential of Springhill's geothermal energy as a clean, inexpensive energy source for local businesses and ways the Town of Springhill can promote its unique energy resource.

North American blackouts and Hurricane Juan brought reliable energy to the forefront of the National Energy Ministers' Conference held in Halifax on September 30, 2003. As co-chair of the annual conference, Nova Scotia supported a number of electricity initiatives, including participation in a federal/provincial/territorial working group studying mandatory electricity reliability standards and a transmission working group studying regional transmission issues.

Natural gas is now being used in homes and businesses in Nova Scotia. In January 2004, Heritage Gas announced that the province's first commercial and residential customers are now receiving natural gas. Work continues as Heritage signs new customers and branches out into its franchise areas.

The department will be helping Nova Scotians looking to convert to natural gas with the assistance from the Gas Market Development Fund. Put aside by the partners in the Sable Offshore Energy Project, these funds will help offset the costs of converting to energy-efficient space heating and hot water appliances for this clean, convenient energy alternative.

Strait Area Gas continues to work on its franchise application and has filed its agreement with its private sector partner in California with the Nova Scotia Utility and Review Board.



INFORMING NOVA SCOTIANS

Nova Scotians need access to practical, reliable information to help them make well-informed choices about the energy they use every day. The Energy Strategy has made significant commitments to public education resulting in a number of public education initiatives.

In August 2003, the department conducted a public awareness research study to determine what Nova Scotians know and understand about energy issues, the offshore, climate change, and their own energy use. In addition to establishing a baseline for measuring improvement in energy awareness, the study conducted a review of current energy-related information available from industry, government, and not-for-profit agencies throughout Nova Scotia to identify gaps in information and potential overlap.

The results of the energy awareness study are now being put to work in the development of a multi-year public education plan that will address two key areas: Our Energy Use (including energy efficiency, renewable energy, climate change, electricity, and gas distribution), and Our Oil and Gas Opportunities (careers and skills and the economic benefits of the energy sector). The plan builds on our successful partnerships with other governments, industry, and not-for-profit organizations to create a comprehensive program that will provide Nova Scotians with the tools they need to better understand the energy issues that affect their everyday lives. The full plan will be available (along with the results of the study) with the release of the department's business plan and will be implemented from 2004–2006.

The creation of Nova Scotia's first oil and natural gas educational video has helped us build a foundation for improving public education and providing valuable information to Nova Scotians. This video, aimed at junior and senior high school students, tells the story of Nova Scotia's oil and gas industry from the beginning, starting with geology through to exploration, development, production, and energy use. The focus on career opportunities will be useful to students seeking employment information about the industry.

A new direct mail campaign will demonstrate to Nova Scotians that "a little energy can save a lot more". Approximately 150,000 households in the Halifax Regional Municipality and the Cape Breton Regional Municipality will receive electrical outlet foam insulators to help reduce drafts and improve energy efficiency in their homes along with helpful tips for reducing energy use, saving money and keeping warm.

The Department of Energy has a unique responsibility to encourage economic development in our energy sector while striking a balance between promoting that development, protecting our environment, and securing a prosperous future for Nova Scotians.

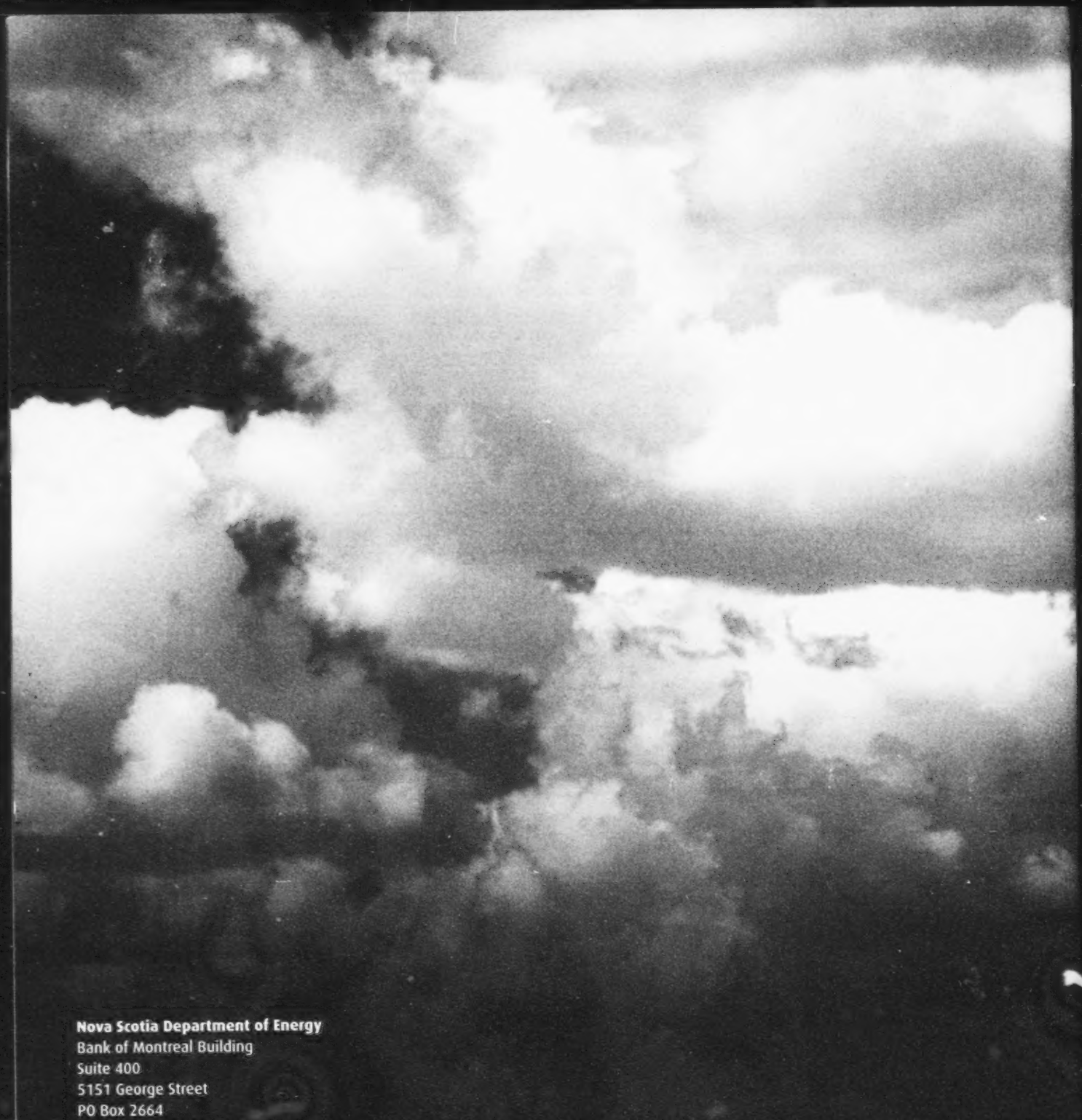
In the coming year, the Department of Energy will continue to implement the Energy Strategy through these key priorities, using the 2004-2005 business plan as a more detailed guide to delivering the programs and initiatives that will help to build the energy sector in Nova Scotia.

We will continue to work with industry, communities, and other governments to ensure that we explore our full potential, learn from our experiences, build on our strengths and offer the global marketplace a world-class, competitive place in which to do business.

We will continue to explore opportunities in electricity generation that allow for growing capacity, more renewable energy sources, and increased competition with a focus on security and reliability for Nova Scotian consumers.

And, we will continue to represent the interests of Nova Scotians at regulatory proceedings that affect our energy resources, our energy use, and our development opportunities.

Together, we will work in partnership to uphold the vision set out in the Energy Strategy—recognizing that "an energy industry balancing economic growth, social goals, and respect for the environment for citizens today and generations tomorrow is essential for Nova Scotia to achieve its vision of becoming one of the best places in the world to live and work."



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